Ford Comments on EV Infrastructure

PEV Infrastructure Gathering Meeting
California Air Resources Board May 27th, 2014

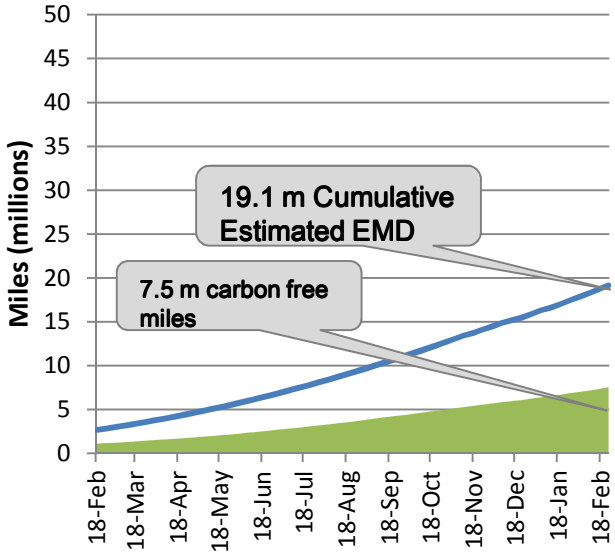
Mike Tinskey
Director, Vehicle Electrification & Infrastructure

Weekly history-

Est. Total Electric Miles Driven

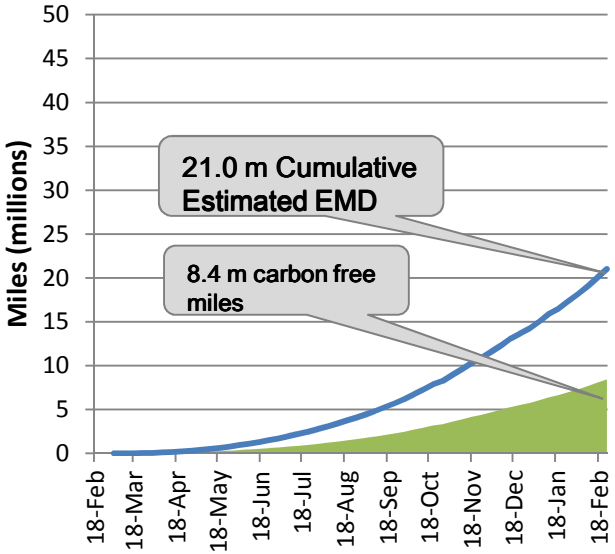
Focus Electric

Cumulative Estimated EMD



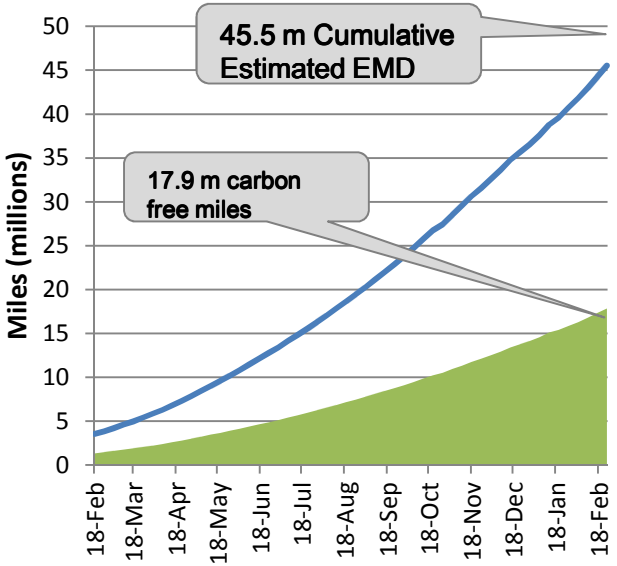
Fusion Energi

Cumulative Estimated EMD



C-MAX Energi

Cumulative Estimated EMD

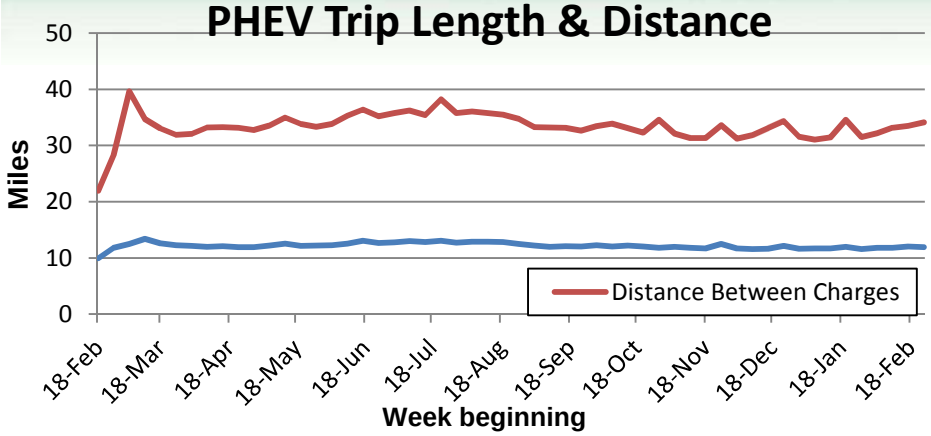


Week beginning

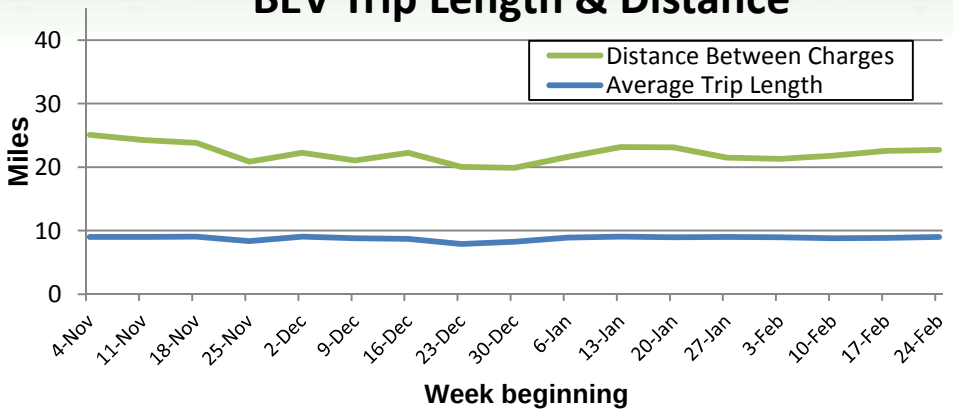
- 360,000 electric miles per day
- 15,000 electric miles per hour
- 1,992,000 gallons of gasoline avoided

Weekly history- Trip statistics

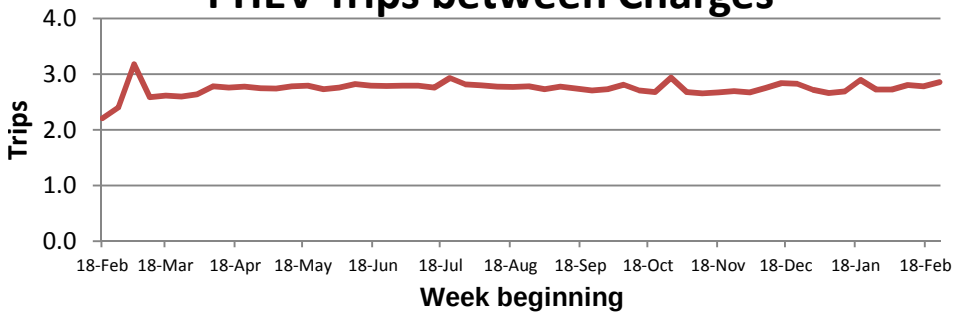
PHEV Trip Length & Distance



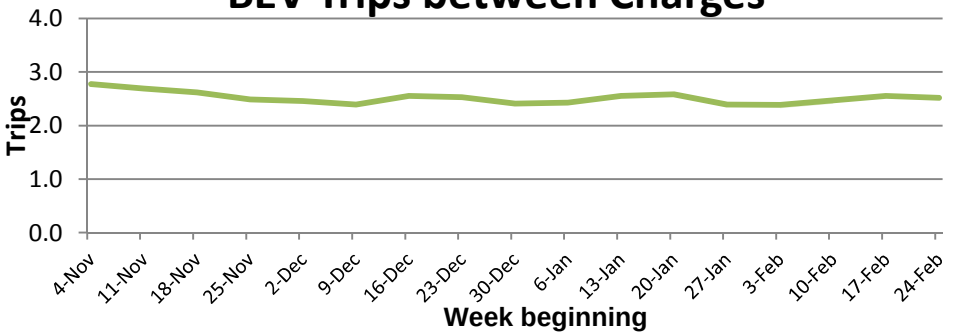
BEV Trip Length & Distance



PHEV Trips between Charges



BEV Trips between Charges



- **Data suggests opportunity for additional infrastructure (workplace charging)**

What types of chargers are being used?

PHEV Chargers

72% Level 1
28% Level 2

Focus Electric Chargers

40% Level 1
59% Level 2

- As expected – greater use of Level 2 for BEV because of larger battery.

- Beyond residential charging, what types of charging infrastructure do customers say they want?
  - Residential is key, followed by workplace charging for PHEV and BEV's, and fast charging for BEV's.
- For those on the fence about buying a PEV, what type of infrastructure would change their mind?
  - For BEV customers, we believe a strategically deployed network of fast chargers (100 kW+) would provide the biggest impact to BEV sales. We need to not be careful of not classifying all fast charging as the same type (ie. power, compatibility, location).
- What types of charging infrastructure do drivers need to improve the utility/usefulness of their PEVs? Interoperability is important for Level 2.
- What away-from-home chargers get the most use?
  - For Ford customers, charging is dominated by home charging. We are seeing growth in workplace charging.
- How does L1 compare to L2 in terms of 4-plus hour parking settings?
  - For 4+ hours, Level 1 investment advantages make sense in the near term. In the longer term, grid services will shift the advantages over to Level 2.
- How does L2 compare to fast charging in terms of under 2-3 hour parking settings?
  - Fast Charging , done at higher power to keep up with battery/range improvements, is most impactful.